## M.Sc. (Industrial Chemistry) and Ph.D course work

(Mid Term - 1 Examination, Oct 2021)

Time: 1 hours Max. Marks = 30Note: All questions are compulsory and carry equal marks. UNIT -I What is research problem? Define the main issues, required in Q1. (a) formulating the research problem. Write short notes on: (b) (a) Pilot survey; (b) Components of a research problem; 5,5 Briefly describe the different steps involved in a research process. Q2. (a) Write short notes on: (b) (a) Design of the research project (b) Objectives of research; 5,5 Q3 Research design in exploratory studies must be flexible but in (a) descriptive studies, it must minimise bias and maximise reliability. Discuss. Explain and illustrate the following research designs: (b) (a) Two group simple randomized design; (b) Latin square design;

5,5